IP-10/MIG RECEPTOR DESIGNATED CXCR3, NUCLEIC ACIDS, AND METHODS OF USE THEREFOR

Abstract of the Disclosure

The present invention relates to proteins or polypeptides, referred to herein as isolated and/or recombinant mammalian (e.g., human) IP-10/Mig receptor proteins designated CXC Chemokine Receptor 3 (CXCR3) and variants thereof, including those characterized by selective binding of one or more chemokines (e.g., IP-10 and/or Mig), and/or the ability to induce a cellular response (e.g., chemotaxis, exocytosis). Antibodies reactive with CXCR3 receptors can be produced using the proteins or variants thereof or host cells comprising same as immunogen.

Another aspect of the invention relates to isolated and/or recombinant nucleic acids encoding a mammalian (e.g., human) CXCR3 protein and variants thereof, including antisense nucleic acid, recombinant nucleic acid constructs, such as plasmids or retroviral vectors, comprising a nucleic acid which encodes a protein of the present invention or variant thereof, and to host cells comprising a nucleic acid or construct, useful in the production of recombinant proteins. Also encompassed are methods of identifying ligands, and inhibitors (e.g., antagonists) or promoters (e.g., agonists) of receptor function, including methods in which host cells comprising a nucleic acid encoding a CXCR3 or variant thereof are used in an assay to identify and assess the efficacy of ligands, inhibitors or promoters. Inhibitors and promoters of receptor function can be used to modulate receptor activity, permitting selective inhibition of lymphocyte function, particularly of effector cells such as activated T lymphocytes and NK cells for therapeutic purposes.